



COMMISSION MEETING MINUTES

Electric Vehicle Product Commission
Conference Rooms 1&2
Indiana Government Center South Conference Center
302 W Washington Street
Indianapolis, IN 46204
Tuesday, November 23, 2021

1. Pursuant to IC 9-13-3, the Electric Vehicle Product Commission (the Commission) meeting was called to order by Chairman Ben Wrightsman at 9:32 a.m. EDT on Tuesday, November 23, 2021. The meeting was conducted in person.

- a. Commission members physically present at the meeting:

David	Dukes	Stellantis
Mike	Maten	GM
Danny	Ernstes	UAW
Paul	Mitchell	Energy Systems Network
Ben	Wrightsmen	Battery Innovation Center
Craig	Kelle	Toyota
Rep. Mike	Karickhoff	State Representative
Sen. Jim	Buck	State Senator
Rep. Carey	Hamilton	State Representative

- b. Commission members absent from the meeting:

Sen. J.D.	Ford	State Senator
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- c. The following staff were physically present during the meeting:

Greg Lannan, Manager of Legislative & Regulatory Affairs, IEDC
David Roberts, Executive Vice-President, Entrepreneurship & Innovation

- d. Each commission member introduced themselves and gave a brief background of themselves and what they would like to see out of the commission
Ben Wrightsman gave an opening welcome speech (see attachment)



Ben notes he's a hands-on person and encourages the commission to be hands on with this commission to make it diverse and relevant. Ben then sites IC 9-3-13 for everyone to hear what the goals and objectives of the commission are. Asks each person to introduce themselves and what their interest and passion is with the commission and what they hope to achieve.

Rep. Karickhoff: Explained that he created a commission that will help empower our state with good policy. Recognizes Rep. Hamilton for her efforts to help create the commission. Thanks Danny Ernstes from UAW for his assistance as well. Recognizes that EV cars don't have transmissions and there are many people that build those in Indiana. This bill has a 5-year sunset. Rep. Karickhoff states the need to help affect how the workforce is trained and how materials are provided. Notes that the major combustion engine manufacturers are moving to EV. Talks about the autonomous vehicle challenge and how technology is evolving. Notes he'll have to leave early for a committee meeting.

David Roberts: Serves as chief innovation officer for the IEDC. (see attachment on introduction) goes through a handout (see attached)

Sen. Buck explained how he grew up in the auto industry and has seen the evolution of vehicles. Only 7% of a vehicle used to be electronic and it is much more than that today. As technology changes so will the jobs. The availability of higher education and jobs is critical for Indiana to be a player in this space. The conversation about EVs varies from viability to environmental health. Notes he is a fan of combustion engines. Believes the greatest challenge will be powering all the electric vehicles that will soon be on the road. The more demand from energy by users, the less miles that they'll be able to travel. He is excited to be here and what could come out of this commission.

Mike Maten: Works for General Motors, won't go over the large talking points from GM. Notes he grew up in the Midwest and has been working with GM for 20 years. Previously worked on the advanced planning for the Cadillac electric vehicle that will be coming out in a few weeks. There is a lot of talk about manufacturing and that needs to be expanded to tool and dye and other sectors to show that manufacturing will still exist. EV production is much more about chemical processes and GM hopes to onshore more of that. This is not just about vehicles but about infrastructure from charging stations to cables to power ports. Mike hopes to educate the commission and public on the barriers faced by companies and consumers.



David Dukes: Works for Stellantis. David explains that propulsion systems is where his career has been. Recognizes that EV is the future, but education, infrastructure, and workforce development will be key.

Paul Mitchell: Paul states that he is a longtime advocate of Indiana's transition to electrification. Notes that Mitch Daniels was a pioneer of the getting automotive industry to IN. In 2006-07, Indiana was at the forefront of bringing electrified powertrains to Indiana. Says that then we were ahead of our peers, but the rest of the country has caught up to us. We are now competing with states that had never been players in the EV/Automotive industry. This is now about with competing against 25 states. There is much work to be done to regain the title as a leader and pioneer in this industry. The goals and objectives of this commission are where the State can be a leader. The evaluation of industries should be from tier 1 to tier 3 size. The grid will certainly play a role in this commission. He hopes that the IURC will be able to provide input on what the cost and challenges of getting power to charging stations in homes will be. Notes that transparency will be key and says that many of the states we are competing with don't have the historical knowledge that Indiana does, which helps gives us an advantage. It's important that factual information is revealed from this commission that can be shared with companies and taxpayers. Paul notes doing all of this won't be easy, but it is the job of this commission to find these answers. There are many other groups that can be helpful to this commission that aren't members. Hopes to be the epicenter for thought space.

Rep. Hamilton: Grandfather used to be a Cadillac dealer. Her father and brother rebuilt and 1960's Ford Mustang so cars are important to her family. Currently works for a climate tech company. There is an incredibly tech opportunity. The work of the commission is incredibly important for Indiana to be pioneers. This is part of a conversation that will help our state be competitive.

Craig Kelle: Works at Toyota. Very excited and appreciative to be on this commission. What Toyota faces is the same as other OEMs. It's workforce, infrastructure, and technological know-how.

Danny Ernstes: UAW, process started 3 years ago. Notes that it takes less workers to build EV's. Nationwide his organization represents different sectors from military to light duty. Feels that UAW needs to be part of this process. Have been partners through wars and economic booms. It's important to keep these jobs here in Indiana. UAW is creating a



partnership with Purdue university. Notes they have partnerships for the Little 500 and Purdue Grand Prix. Looks forward to working with everyone.

Greg Lannan: Welcomes everyone. Excited to be a staff member of the commission and work for everyone on the commission.

2. Overview of the objectives of the commission and open conversation about possible activities

Ben Wrightsman: Notes that his charge comes from the electronic sector. Started working in the early EV industry on EV1. He owns combustion, hybrid and fully electric vehicles. Believes that there will not be a one size fits all solution to how EV works but other forms of EV that aren't just batteries. EV can also mean hybrid or hydrogen. How do we use Indiana's historical infrastructure to find the best solution? Diversity of supply is important. This is a dynamic industry that involves many different parts and pieces. There is no single individual or organization that has the exact expertise to help find these solutions. The diversity of this commission will help to find those answers. Education of workforce will also be of great importance for this generation and the next generation. Indiana has an opportunity to lead. It's important that Hoosiers are the Pioneers of this sector.

Sen. Buck: Has anything been done to make the connectivity of phones and cars more universal? Are ford chargers going to be different than Tesla, is something that companies are working on to get an agreement on or is this a regulatory matter?

Ben Wrightsman: This is important to note when talking about infrastructure and note what works together and which cars don't work?

Sen. Buck: Should developers of homes have a standard so they know what they can install? This could be difficult for builders. This goes beyond homebuilders but commercial as well.

Danny Ernstes: Would it make more sense to see what the end goal of the commission is and then work back from that. Seeing things in front of us will help us develop recommendations for the legislators. The research that UAW is doing with Purdue is a risk assessment and is similar to this.



Paul Mitchell: To complete all of the objectives of this commission we have to pull a lot of information into a single place. There are education and industry partners that can be used to help with this. What format does this information need to be presented that will help to inform businesses and the public? Are there other commissions that have done similar research. Should we travel across the state and have conversations with individuals? A dense report can get the information required of the commission but there is more that can be done to be helpful in this commission.

Paul Mitchell: Asks Mike Maten if he has seen any examples of other states or organizations that are doing a good job of communicating the transition of workforce and how this affects small and medium size organizations.

Mike Maten: Not aware of any personally but can check. The committee is centralized on workforce but that can't happen without being leaders of EV adoption. What are the barriers to the demand? Indiana is in the lower portion of states that are adopting EV.

Ben Mitchell: Electrification workforce is a problem certainly. Advanced workforce is hard for many of these businesses to find. Adoption will drive more workforce certainly, but Indiana already has a shortage

Rep. Hamilton: The state needs to walk the talk. At some point we should talk about the fee of buying an EV instead of giving an incentive to purchase an EV.

Paul Mitchell: Diversity of products haven't lined up with the tastes of Hoosiers. Indiana is still primarily more rural communities. Long distances for people traveling will be an issue for those individuals. The trip from Evansville to Princeton for a shift at Toyota won't be done in 1 charge if there is cold weather. Paul does agree that demand needs to be addressed. Demand in the Midwest will be important but will be an uphill battle because of cold weather.

Danny Ernstes: The UAW is also trying to find different commissions/reports done but it's very spotty across the map. Happy to keep looking but it seems that Indiana may be a pioneer in this.

Dave Roberts: The Michigan IEDC has a dedicated branch for the EV sector.



Ben Wrightsman: Illinois has made a similar announcement, doesn't believe that Ohio has done anything formally. Notes a Midwest commission will be taking place in December that will help the Midwest work together to maintain their manufacturing corridor.

David Roberts: A key aspect of the Illinois announcement gives a 20% pricing preference from the department of administration. How does the state encourage the state government to electrify its fleet?

Mike Maten: This will lead to an infrastructure issue and sometimes the state being involved will help with that. Multi dwelling families should strongly be considered as well.

3. Asset assessment directives both historical and current capabilities

Paul Mitchell: Should this topic be dedicated as an agenda item in a future meeting? That conversation should include the IURC or IEA or others that can help play a role in this. When blue Indy was built out, it was the largest undertaking of an urban electrical grid in North America. Many issues can arise from retro fitting old parking garages. It's easier to do it with new construction but to retrofit is expensive and difficult.

Rep. Hamilton: The IURC is looking for guidance from the legislator this session.

Sen. Buck: Thinks that workforce development and adoption are the same. If someone runs out of gas, they call AAA or a friend, if that happens to someone with an EV, what happens to them?

Ben Mitchell: Agrees with what Sen. Buck said.

Mike Maten: Asks the commission if meetings should be tailored to specific topics.

Ben Mitchell: Should life cycle of batteries and recycling be studied and looked at as well?



David Dukes: Wants to make sure the commission knows what the end goal is outside of what the requirements are.

Sen. Buck: Wants to make sure that government is out of the way so that innovation isn't slowed. At the same time wants to help make Indiana one of the friendliest EV states in the country from adoption, to recyclability, to all sectors of the EV industry.

4. Scheduling of future commission meetings

Paul Mitchell: To what extent does this group need to be aware of events or meetings with the IURC or other industries? Or do we wait until after session?

Rep. Hamilton: It seems too short of time to be involved this early before the start of this session.

Ben Mitchell: Suggested to meet quarterly.

There is general consensus by the group to meet quarterly but will leave the possibility open to conducting meetings sooner than that.

Paul Mitchell: Asks for an outline of what this report will look like for the report submitted to the commission.

Ben Wrightsman: Asks Greg to put together a framework and possible virtual meeting between now and January to discuss the framework of a proposal.

5. Public Comments

Kerri Garven: Executive Director of Greater Indiana Clean Cities Inc. Kerri notes that she has worked for over 20 years on EV industry. She states that her organization that wants to be helpful to the commission. There is a lot of activity around EV going on in the state. They are happy to be a resource or collaborator.

6. Adjourn

Chairman Wrightsman motions to adjourn with a second by Rep. Hamilton. Meeting ends.